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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,558	12/01/2000	Timothy Roscoe	1589	4958

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EXAMINER

POLTORAK, PIOTR

ART UNIT PAPER NUMBER

2134

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/728,558

Applicant(s)

ROSCOE ET AL.

Examiner

Peter Poltorak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/01/00 & 4/20/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-22 have been examined.

Priority

2. No claim for priority has been made in this application.
3. The effective filing date for the subject matter defined in the pending claims in this application is 12/1/2000.

Information Disclosure Statement

4. The information disclosure statement filed 12/01/00 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because Caronni et al.'s "Virtual Enterprise Networks: The Next Generation of Secure Enterprise Networking," does not contain a publication date. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR §1.97(e). See MPEP § 609 C(1).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 13 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. In claims 13 and 20 "the group" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1- 3, 5-10, 12,14-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colby et al. (U.S. Patent No. 6006264) in view of Pfleeger (Charles P. Pfleeger, "Security in Computing", ISBN 0133374866, 1996).**
8. *Colby et al.* teach a cluster-based public computing environment (*Colby et al.*, col. 2 lines 22-33), and communications between service components comprising a network switching system, a plurality of processing nodes interconnected via the network switching system (*Web Servers, clients and Content-aware flow switch*), a plurality of application components loaded onto the processing nodes (*col. 3 lines 10-28 and col. 1 lines 59-65*). Content is defined as an application in col. 1 (e.g. Java) and col. 3 says that servers service a client request for content. The client itself must have means to

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access the application as well as establish a remote connection between the client and server apps, each application component having a respective service-access-point defining (i) a network address of the processing node on which the application component is loaded and (ii) a port at the processing node, the port being associated with the application component (*Colby et al.*, col. 2 lines 8-45, col. 3 lines 10-12).

9. *Colby et al.* teach executable logic that responds to an attempted inter-node communication between a service and application components but do not teach blocking disallowed inter-node communication.
10. *Pfleeger* teaches significant threats to systems connected to the Internet and offers an executable logic solution of filtering traffic (*Pfleeger* sec. 9.5, pgs. 426-428) which blocks disallowed inter-node communication using network and VLAN addresses, and port numbers (SAP) (*Pfleeger* sec. 9.5, *Screening Router for example*). Therefore in order to improve security it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement executable logic solution on processing nodes or a network switch in order to protect data.
11. *Pfleeger* teaches destination addresses saying that "depending on the protocol, a header may contain source and destination addresses" (pg. 430 s 1). Claim 9 is addressed by the section on pg. 430 where *Pfleeger* says: "A screening router might be configured to block all packets... etc." Claim 15 is not explicitly addressed, but obviously if a packet is not allowed it is dropped. With respect to claim 19, an agent is limited by neither the claim nor the

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specification; thus it is understood that the software components that are read on the agent. Similarly claim 7 calls for an agent and talks about the interface through which instructions may be provided. An interface is a necessary component. Claim 7 talks about VLAN. VLAN is logical grouping of two or more nodes which are not necessarily on the same physical network segment but which share the same IP network number. The address range numbers provided by Pfleeger, e.g. 100.50.25.x meet this limitation (*pg.430 § 2*).

12. *Pfleeger* does not explicitly teach of each service component comprising and Internet address of the respective

13. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colby et al. (U.S. Patent No. 6006264) and Pfleeger (Charles P. Pfleeger, "Security in Computing", ISBN 0133374866, 1996) as applied to claim 3.**

14. *Colby et al.* and *Pfleeger* teach at least one of the SAPS comprising a port selected from the group consisting of a TCP port.

15. *Colby et al.* and *Pfleeger* do not teach at least one of the SAPS comprising port selected from the group consisting of a TCP port and a UDP port.

16. Official notice is taken that it is old and well-known that UDP ports are used in internet protocol communication. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include UDP ports in order to protect data from UDP attacks.

17. **Claim 11 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colby et al. (U.S. Patent No. 6006264) and Pfleeger**

(Charles P. Pfleeger, "Security in Computing", ISBN 0133374866, 1996)

as applied to claims 1 and 18.

18. *Colby et al.* teach the attempted inter-node communication.

19. *Colby et al.* do not teach an attempted inter-node communication comprising an attempted inter-node between antagonistic service components and application providers competing for business. Official notice is taken that it is old and well-known that the Internet includes nodes with antagonistic service components hosted by many competing application providers. Thus it is unrealistic to keep out all of the nodes with antagonistic services of the internet connection. Therefore it would have been obvious that antagonistic serviced components will compete.

20. **Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Colby et al.* (U.S. Patent No. 6006264) and Pfleeger (Charles P. Pfleeger, "Security in Computing", ISBN 0133374866, 1996) as applied to claim 12.**

21. *Colby et al.* and *Pfleeger* teach inter-node data communication wherein the data represents information selected from the group consisting of source and destination.

22. *Colby et al.* and *Pfleeger* do not teach inter-node data communication wherein the data represents information selected from the group consisting of service level. Official notice is taken that it is old and well-known to that node owners connected to the Internet have various levels agreements. It would have been obvious to one of ordinary skill in the art at the time the invention

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was made to include service level in order to recognize customers bringing more profit for paid services.

23. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colby et al. (U.S. Patent No. 6006264) and Pfleeger (Charles P. Pfleeger, "Security in Computing", ISBN 0133374866, 1996) as applied to claim 16 in view of Arendt et al. (U.S. Patent No. 5819091).

24. *Colby et al.* teach loading the application components onto the processing nodes of the public computing platform.

25. *Colby et al.* do not teach assigning to each application component a respective trustworthiness measure and a respective criticality measure, and using these measures of a given application component to select a given processing node of the public computing platform onto which the given application component should be loaded.

26. *Arendt et al.* teach servers implementing different security levels for different applications (*col. 7 lines 27-41*). Thus it would have been obvious to one of ordinary skill in art at the time of applicant's invention to centralize applications with the same levels on the same server for better administration, security and efficiency.

Conclusion

No claim is allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (703) 305-0719. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

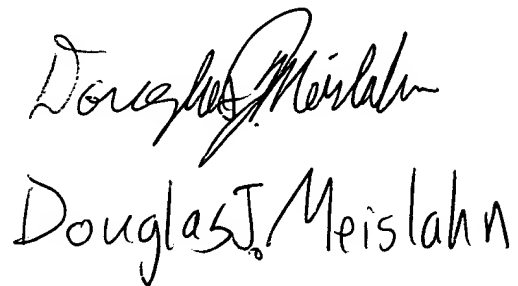
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Signature

7/22/04

Date


Douglas J. Meislahn